Declaration of Dr. Adam Werner

Pursuant to Rule 26 of the Federal Rules of Civil Procedure

November 19, 2010

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I. Introduction

1. I have been retained by Berman DeValerio and Cohen Milstein Sellers & Toll PLLC ("Counsel"), on behalf of Thomas P. DiNapoli, Comptroller of the State of New York, as Administrative Head of the New York State and Local Retirement Systems and sole Trustee of the New York State Common Retirement Fund and Ohio Attorney General Richard A. Cordray, statutory litigation counsel for the Ohio Public Employees Retirement System, the State Teachers Retirement System of Ohio, the School Employees Retirement System of Ohio, and the Ohio Police & Fire Pension Fund (collectively, "New York and Ohio") in this action.

2. My opinions address the following matters:

- The price response of BP, PLC's ("BP's") American Depository Receipts ("ADRs") to information released to the public between April 20, 2010 and June 1, 2010 regarding the fire on the Deepwater Horizon and its subsequent impact on BP's future profitability.[1]
- Whether or not the stock market found the aforementioned information releases material.
- The approximate losses suffered by the two groups of movants seeking appointment as lead plaintiff in this action based on their transactions in BP's ADRs over four distinct time periods, all of which are contained within the class period of June 30, 2005 and June 1, 2010.[2]

3. I understand that as an expert witness in this proceeding my duty in providing my report is to the Court and that this duty overrides any obligation to the parties who have engaged me, from whom I have received instructions or from whom I have been paid. I confirm that I have complied with this duty.

4. I believe that my opinions expressed herein are true and correct, and I accept full responsibility for this report.

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[1] Note that my examination of announcements between April 20, 2010 and June 1, 2010 is not exhaustive and thus should not be thought of as a study of all material events after April 20. 2010. Rather it is an abbreviated study to show that there was new information released to the market regarding the alleged fraud that occurred after April 20, 2010 that investors found material.

[2] The periods were April 16, 2009 through June 1, 2010, March 4, 2009 through June 1, 2010, February 27, 2008 through June 1, 2010, and June 30, 2005 through June 1, 2010.

II. Summary of Opinions

1. **As BP began releasing information between April 20, 2010 and June 1, 2010 regarding the amount of oil leaking into the Gulf from the Deepwater Horizon, the value of BP's ADRs began to decline significantly.[3,4] Specifically, BP made two announcements regarding the size of the oil spill during this time period which investors found material.**

2. **Regardless of the time period I examined, New York and Ohio suffered the greatest damages of any of the movants.**

III. Professional Background and Experience

5. I am a Consultant at Berkeley Economic Consulting ("BEC"), located in Berkeley, California. I have been affiliated with BEC since 2009 and have spent the last 11 years working for consulting firms including Cornerstone Research, CRA International and NERA. I have been retained by both plaintiffs and defendants to consult on matters pertaining to financial valuation, security issuance, materiality and loss causation, damages in securities class actions, bankruptcy and option backdating. My opinions have been accepted as evidence in Federal, State and Bankruptcy courts within the United States as well as in Canadian courts. I have lectured frequently to attorneys on the topic of damage estimation in securities class actions. I have also spoken on the estimation of capital rates in emerging economies at a conference organized by the University of Texas School of Law.

6. I hold a Ph.D. in Finance (1999) from Northwestern University's Kellogg Graduate School of Management. While at Kellogg, I taught M.B.A. classes in both corporate finance, and futures and options. I was also awarded a University Scholarship during my time at Kellogg. Prior to graduate school, I served as a Research Assistant at the Federal Reserve Bank of Cleveland. My full Vitae can be found as Exhibit 1 to this declaration.

7. My compensation is based on the number of hours my associates and I work on this matter. My hourly rate is $400 per hour. BEC's hourly rates for employees range from $60

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[3] The Oklahoma Police Pension & Retirement System, Individually and On Behalf of All Others Similarly Situated vs. BP, PLC, BP America, Inc., Anthony B. Hayward, Lord Edmund John Philip Browne, Andrew G. Inglis, Carl-Henric Svanberg, H. Lamar Mckay, Sir William M. Castell, Paul M. Anderson, Anthony Burgmans, Cynthia Carroll, Erroll B. Davis, Jr. and Peter Sutherland, July 19, 2010, p. 3. Subsequent citations to the complaint simply refer to it as the Oklahoma Complaint.

[4] As the fire occurred after the close of the stock market on April 20, 2010, the price decline of $.39 actually occurred on April 21, 2010 when BP closed at $60.09 (See Exhibit 3).

to $450. A list of documents I reviewed in forming my opinion in this matter can be found in Exhibit 2 to this declaration.

IV. Basis for Opinions

A. There were additional material announcements regarding BP's lack of safety and inability to respond to the oil spill following the April 20, 2010 explosion.

1. Methodology

8. Finance theory holds that the market price of a stock reflects the discounted value of expected future cash flows to the stockholder. As a result, new information that causes the market to significantly alter its expectation of future cash flows will cause a quick repricing of the security to reflect these new expectations.[5] As a way to measure the impact of this new information on a stock's price, economists have utilized the event study methodology. This methodology is commonly used in securities fraud cases to assess materiality, loss causation and artificial inflation.[6]

9. On any given day, a security price responds to a wide range of information, including market- and industry- wide conditions as well as company specific news. In performing an event study, one compares the daily percentage return in the market price of a company's stock to the return predicted by a "market model." A market model describes the relationship between the return of a company's stock price and the return on a market index such as the New York Stock Exchange ("NYSE") composite index and/or an industry index.[7] Thus, a market model measures the expected return on a stock for a particular day given the overall market and industry information available on that day. The difference between the actual return on an individual stock and the return predicted by the market model is called an "abnormal return" and it measures the impact of new, firm specific information on a firm's stock price.

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[5] See, for example, Fama, Eugene F., "Efficient Capital Markets: II," *Journal of Finance* 46, No. 5, 1575-1617 (December 1991).

[6] See Tabak, David I. and Frederick C. Dunbar, "Materiality and Magnitude: Event Studies in the Courtroom," in Litigation Services Handbook: The Role of the Financial Expert, Third Edition, Ed. By Roman L. Weil, Michael J. Wagner and Peter B. Frank, Wiley, 2001, Chapter 19.

[7] An industry index is typically a portfolio of companies that are similar in nature to the individual company you are examining.

10. Once the abnormal returns are estimated, one normally tests whether or not the abnormal returns are statistically significant. If it is statistically significant, it means that the event is associated with a stock price return that is greater (more positive or more negative) than expected given the changes in the market and the industry on the event day.

11. In performing an event study, one must first identify "event days" in which to measure whether or not the market's reactions to these events were "abnormal."[8] In this case, I examined 4 event days. The first was April 20, 2010 when "at [BP's] Macondo prospect site about 50 miles off of the Louisiana coast in the Gulf, an eruption of oil or natural gas occurred leading to an intense fire on the Deepwater Horizon semisubmersible oil rig."[9] The other three event days all had to deal with the size of the subsequent oil leak. "On April 25, 2010, BP spokesman Ron Rybarczyk stated that the leak was releasing oil at a rate of 1,000 barrels per day."[10] Subsequently "on April 29, 2010, BP's chief operating officer of exploration and production, Doug Settles, stated: 'I would say the range [of the oil leak] is one to 5,000 barrels a day.'"[11] Then, between Saturday, May 29, 2010 and Tuesday, June 1, 2010, several announcements were made by or about BP regarding its lack of safety protocols and inability to respond to the much larger than originally disclosed oil spill.[12]

12. In examining BP's ADRs reaction to the announcement of the Deepwater Horizon fire and the size of the subsequent oil leaks, I estimated my market model from April 20, 2010 through June 1, 2010. Specifically, I regressed the daily returns of BP's ADRs on the daily returns of an industry portfolio (See Exhibit 4).[13] I included an indicator (dummy) variable for each of the four event days in my event study.[14]

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[8] The choice of event days is typically based on whether or not the individual performing the study felt material information about a company was released on said days.

[9] The Oklahoma Complaint, p. 3.

[10] The Oklahoma Complaint, p. 32.

[11] The Oklahoma Complaint, p. 32.

[12] The Oklahoma Complaint, p. 32

[13] The portfolio, the American Stock Exchange's oil index excluding BP, was comprised of Anadarko Petroleum Corp., ConocoPhillips, Chevron Corp., Hess Corp., Marathon Oil Corp., Occidental Petroleum Corp., Repsol YPF, S.A., Sunoco, Inc., Total, S.A., Valero Energy Corp. and Exxon Mobil Corp. I also estimated a market model using the NYSE composite index as the reference portfolio. Using the NYSE portfolio instead of the industry index did not change my results.

[14] An indicator variable is a variable that takes on the values of 0 or 1 to indicate the absence or presence of some non-model explained event that may be expected to shift the models outcome. In this case, the events are the potentially corrective disclosures.

2. Analysis

13. On April 20, 2010, it was reported that the Deepwater Horizon had caught on fire. The first announcement regarding the size of the oil spill occurred on April 25, 2010 when BP stated that oil was leaking from the well at the rate of 1,000 barrels per day. Then, on April 29, 2010, when a BP representative suggested the spill would range from 1,000 to 5,000 barrels per day, BP's ADRs declined by $4.78 to $52.56. The corresponding abnormal return on that day was -8.2% which is considered to be statistically significant, suggesting that this information was material to the market. Given that the estimated size of the spill had increased by up to 5 fold since the previous announcement, it is easy to understand that this dramatic increase in expected spill size would be associated with a dramatic increase in the costs that BP would subsequently incur. An increase of this magnitude would hurt BP's future profitability and thus its ADR price.

14. Finally, between Saturday, May 29, 2010 and Tuesday, June 1, 2010, several disclosures were made by or about BP that caused a material negative reaction in the Company's share price. First, on May 29, 2010, BP announced that its "top kill" procedure had failed. On that same day, *The New York Times* reported that BP "[i[nternal documents ... show that there were serious problems and safety concerns with the Deepwater Horizon rig far earlier than those the company" had previously disclosed and that the "documents show that in March, after several weeks of problems on the rig, BP was struggling with a loss of 'well control.' And as far back as 11 months ago, [BP] was concerned about the well casing and the blowout preventer." Then, on May 30, 2010, BP announced that the size of the spill would be larger than previously disclosed and would be between 12,000 and 19,000 barrels per day. Finally, on June 1, 2010, the U.S. Department of Justice announced that it had opened formal criminal and civil probes into BP's conduct leading up to the oil spill and the Company's response thereafter. On these disclosures, BP's ADRs fell $6.43 to $35.62.[15] The abnormal return for BP's ADRs according to our market model was -11.8% which again is highly statistically significant confirming our hypothesis that this was information material to the market.[16]

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[15] Monday, May 31, 2010 was Memorial Day and the markets were closed. Therefore, June 1, 2010 was the first day that the markets could react to the May 29, 2010 through June 1, 2010 disclosures.

[16] As stated previously, the event study performed in this declaration is meant for illustrative purposes. Thus, it is possible that there were other announcements between April 20, 2010 and June 1, 2010 that may have been material to the market. For that matter, it is possible that there were other announcements subsequent to June 1, 2010 that the market may have found material with respect to the alleged fraud.

B. Regardless of the time periods I examined, New York and Ohio suffered the greatest damages of any of the movants.

1. Methodology

15. In order to estimate the approximate losses suffered by the movants in this case, I used two methodologies which differ only in the sales sequence of the ADRs purchased during the class period: 1) the first-in, first-out ("FIFO") methodology and 2) the last-in, first-out ("LIFO") methodology. In assessing losses, one simply subtracts the price of a share purchased during the class period from the share's corresponding sales price where the corresponding sales price is determined using the FIFO or LIFO methodology.

16. Under a FIFO methodology, a share that is sold during the class period is matched with the share that has been held the longest regardless of when the share was purchased. The damage to that purchased share is then its purchase price minus the corresponding sales price. In a situation where the pre-class period holdings far exceed the purchases during the class period, the sales price used is usually the average price of the stock on the 90 days following the end of the class period.[17,18] In our calculations, we utilized the price of $32.76 which has previously been utilized by our clients in estimating the claimants' losses.[19]

17. Under a LIFO methodology, a share that is purchased during the class period is matched with the most recently sold share which has not previously been matched with a corresponding purchase. If there is not a corresponding share sold during the class period nor is there data on transactions during the lookback period, one will simply use the average share price over the lookback period as the sales price.

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[17] Under the Private Litigation Reform ACT ("PSLRA"), the 90 days following the end of the class period are referred to as the "lookback period."

[18] To the extent that one has sales data on shares sold after the end of the class period but during the lookback period, one is required to use the average closing price between the end of the class period and the date of the aforementioned sale.

[19] This is true for all matching sales that occurred after the end of the class period save one. The Ohio plaintiffs sold 22,000 BP ADRs on June 17, 2010. The average closing price of BP's ADRs between the end of the class period and June 17, 2010 was $33.94.

2. Analysis

18. Using data received from Counsel, I calculated the approximate losses suffered by New York and Ohio as well as the losses of Robert Ludlow, Peter Lichtman, Leslie Nakagiri and Paul Huyek (collectively referred to as the "Ludlow Plaintiffs").

BP PLC
Sponsored ADR (055622104)

Class Period	New York and Ohio		Ludlow Plaintiffs	
	FIFO (Loss)/Profit	LIFO (Loss)/Profit	FIFO (Loss)/Profit	LIFO (Loss)/Profit
04/16/09 - 06/01/10	($2,969,317)	($2,407,300)	($163,202.00)	($163,202.00)
03/04/09 - 06/01/10	($3,699,994)	($1,872,806)	($163,202.00)	($163,202.00)
02/27/08 - 06/01/10	($8,956,502)	($3,655,203)	($163,202.00)	($163,202.00)
06/30/05 - 06/01/10	($21,901,635)	($20,642,328)	($163,202.00)	($163,202.00)

19. As one can see from the table above, regardless of the time period I examined, New York and Ohio's losses far exceed those of the Ludlow Plaintiffs.

V. Potential Additional Analyses to Perform

20. My opinions are based on the information received as of the date of my report. Should any additional data surface subsequent to the submission of my report, I reserve the right to make changes to my report based on this new data.

Dated: November 19, 2010

Dr. Adam Werner